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IBM CORPORATION			REAGAN, JAMES A	
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# BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Paper No. 12

Application Number: 09/439,310 Filing Date: November 12, 1999 Appellant(s): GLOOR ET AL.

MAILED

MAR 11 2003

William E. Schiesser/John R Pivnichny For Appellant **GROUP 3600** 

**EXAMINER'S ANSWER** 

This is in response to the appeal brief filed 27 January 2003.

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#### (1) Real Party in Interest

A statement identifying the real party in interest is contained in the brief.

#### (2) Related Appeals and Interferences

A statement identifying the related appeals and interferences which will directly affect or be directly affected by or have a bearing on the decision in the pending appeal is contained in the brief.

#### (3) Status of Claims

The statement of the status of the claims contained in the brief is correct.

#### (4) Status of Amendments After Final

The Appellant's statement of the status of amendments after final rejection contained in the brief is correct.

#### *(*5*)* Summary of Invention

The summary of invention contained in the brief is correct.

#### *(6)* Issues

The appellant's statement of the issues in the brief is correct.

#### *(*7) Grouping of Claims

The Appellant's statement in the brief that certain claims do stand or fall together.

#### (8) Claims Appealed

The copy of the appealed claims contained in the Appendix to the brief is correct.

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### (9) Prior Art of Record

• 5,208,765 A Turnbull 05-1993

• 6,161,113 A Mora et al. 12-2000

• Eisener, Howard. "Essentials of Project Management and Systems Engineering Management." 1977, John Wiley and Sons; New York. pp46-53, 58-60, 147-176.

### (10) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claim 4 is rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. Dependent claim 4 cites limitations regarding a readiness review that is performed by conducting a meeting. Although the claimed subject may at times produce a useful and tangible result, it does not produce a concrete result. That is, the subject matter contained within the claims merely relates an intention to produce result i.e. tangible written reports or to verify the existence of said reports, but the results are not concrete because the outcome of the meeting is not predictable or repeatable. That is, the results of each meeting would most likely change from meeting to meeting. As affirmed above, the subject matter contained within the claims merely relates a thought process and not a physical device such as a computer or computer software that would produce or organize such written reports or establish whether the reports exist at all. Consequently, the claim language as written does not meet the requirements for statutory subject matter.

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Claim 4 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Appellant regards as the invention. Dependent claim 4 cites limitations regarding a readiness review that is performed by conducting a meeting to establish whether reports have been generated. However, dependent claim 4 does not disclose what one would expect to gain or gather once establishment or non-establishment of said written reports was confirmed. Consequently, the result of such a meeting does is vague and indefinite. For the purposes of this examination, it will be assumed that a report regarding the establishment of the enumerated written reports will be established and documented.

Claims 1-4 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Eisener, "Essentials of Project and Systems Engineering Management", herein referred to as "Eisener."

### Claim 1:

With regard to the limitation of defining a first solution by a provider having a business objective, for a customer having a need, Eisener discloses needs, goals and objectives as a statement of requirements to be supplied to a solutions provider (Chapter 3, The Project Plan, pages 46-53, and Chapter 7, The Thirty Elements of Systems Engineering, page 157). The provider, or systems engineering team, provides possible solutions to the customers needs in the form of Requirements Analysis and Allocation as well as Functional Analysis and

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Allocation, and later on an Architectural Design Synthesis based on the first round of solutions (Chapter 7, The Thirty Elements of Systems Engineering, page 158-160).

With regard to the limitation of performing a first assurance review of said first solution to determine whether said first solution is technically viable, deliverable, and includes technical risk identification, assessment, and containment plans, Eisener discloses an Alternatives Analysis and Evaluation, in which options and adjustments to the basic solution are entertained and appraised (Chapter 7, The Thirty Elements of Systems Engineering, page 160-161).

With regard to the limitation of performing a second assurance review of said first solution to determine whether said first solution includes complete schedules, a complete cost and profit case, and said first solution satisfies both said provider business objectives and said customer need, Eisener shows a Technical Peer Review (Item 10, Figure 7.3, page 155) and a feedback into the Reevaluation of Alternate Concepts step. Although not explicitly disclosed as part of a second assurance review, scheduling is disclosed as an important factor in project management as shown in section 3.5, Schedule (pages 58-60). In addition, cost and profits are also considered as an integral part of the project life cycle, as disclosed in section 7.3.8, Life-Cycle Costing (pages 163-165). Inherently, as disclosed above, all matters and concerns must fall within provider objectives and customer needs.

With regard to the limitation of defining a second solution by said provider. by correcting any deficiencies identified in said first or second assurance reviews: thereafter, performing a first readiness review of said second solution to identify new issues or risks which arose during said obtaining customer commitment step, determine whether delivery plans are established, and establish baselines for performance and said profit case, Eisener discloses Alternatives Analysis and Evaluation (section 7.3.6, pages 160-161) in which testing and evaluation are performed, quality assurance is reviewed and preplanned improvements are considered. Any new issues or risks are addressed during risk analysis. As shown in Figure 7.3, Items 6,7,8 (Alternatives) are inputted to a baseline concept (Item 9), which goes through a Technical Peer Review (Item 10) and a Cost Analysis (Item 11) before the System Design Review (Item 14). This flow chart shows the inherently recursive nature of consistently searching for better solutions and testing and evaluation optional solutions before implementing them as the primary goal. Concurrent Engineering (section 7.3.10, pages 165-166) takes into account the possibility of improving and altering the engineering process throughout its life cycle to better achieve the goals of the plan and meet the needs of the customer.

With regard to the limitation of periodically performing a project management review to verify said second solution is being managed as defined, meeting said profit case, and meeting said customer need; and thereafter, performing a deliverable readiness review to verify that said second solution has

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been delivered to said customer and that said second solution satisfies said customer need, Eisener shows a Mission Design Review (Figure 7.2, Item 17) which is designed to ensure that each solution is on track and compliant with mission goals and objectives. In addition, the System Design Review (Figure 7.3, Item 14) ensures that the implementation of the solution is within technical specifications and guidelines, as derived from customer needs and defined metrics. Quality Assurance and Management (QA&M), as disclosed in section 7.3.20, pages 171-172, assures strict conformance with standards as dictated by the customer. Inherently, as shown above, each review is underpinned with the assumption that the customer's needs must be met accordingly.

With regard to the limitation of *obtaining customer commitment to said* second solution, Eisener discloses providing an explanation to the customer regard an alternative solution before implementing an alternative plan (Section 7.3.6, pages 160-161). Inherently, as part of any systems engineering process, the customer is the final authority and makes the decision whether to implement a strategy or plan, and should be consulted before significant modifications are consummated.

### Claim 2:

With regard to the limitation of performing a third assurance review of said second solution to determine whether said deficiencies have been satisfactorily corrected, Eisener shows three reviews during the engineering process (Figure 7.3, Items 5, 10, and 14). Although Eisener does not specifically disclose that a

third review is intended determine whether said deficiencies have been satisfactorily corrected, it is the inherent nature of any reviewing process to uncover flaws, liabilities, or errors during the design phase before the implementation and delivery phases of a product or service, as discussed in the rejection of Claim 1 above.

### Claim 4:

With regard to the limitation of *first readiness review is performed by* conducting a meeting to examine whether written delivery plans comprising communication delivery plans, organization delivery plans, tracking delivery plans, change control delivery plans, quality management delivery plans, and reporting delivery plans are all established, Eisener discloses Training and Documentation i.e. communication (Section 7.3.25, page 174; Section 7.3.24, page 174); Systems Engineering Management i.e. organization (Section 7.3.30, pages 175-176); Operations and maintenance (O&M) i.e. tracking (Section 7.3.28, page 175); Preplanned Product Improvement (P3I) i.e. change control (Section 7.3.23, pages 173-174); Quality Assurance and Management (QA&M) (Section 7.3.20, pages 171-172); and Installation i.e. delivery (Sections 7.3.27 and 7.3.30, pages 175-176). Inherently, each facet of the process takes the form of a written report during the evaluation meeting for the examination and convenience of all reviewing entitles.

## (11) Response to Argument

### Issue 1

Claims 1, 2 and 4 have been finally rejected under 35 U.S.C. 102(b) as being anticipated by Eisener. The issue is whether Eisener anticipates Claims 1, 2, and 4.

With regard to the Appellant's assertion that *Eisener does not describe*Appellant's required determination of technical viability, nor does Eisener describe Appellants' required determination of deliverability of the first solution,

Examiner respectfully disagrees, and points to Chapter 3, The Project Plan, pages 46-53, and Chapter 7, The Thirty Elements of Systems Engineering, page 157. Therein, Eisener discloses Requirements Analysis and Allocation as well as Functional Analysis. Eisener also discloses Alternatives Analysis and Evaluation. It is inherent to any systems engineering process to ensure that the technical solution is viable and that the solution be deliverable to the client. Naturally, without feasible and deliverable solutions, the systems engineering project would most likely fail before finishing.

With regard to the Appellant's assertion that *Eisener does not describe a* step of performing a second assurance review including a all of the 4 business items recited in this step of Appellants claim 1, Examiner respectfully disagrees, and points to Item 10, Figure 7.3, page 155, section 3.5, Schedule (pages 58-60), and section 7.3.8, Life-Cycle Costing (pages 163-165). As pointed out by the Appellant, the technology review of Eisener is mostly concerned with the

technological aspect of the process. However, Eisener discloses other non-technical aspects the engineering process such as budgetary and scheduling constraints. Consideration of non-technical restrictions is an inherent part of any program manager's responsibility, as shown by the inclusion of such subject matter by Eisener.

The application of the definitions above with regard to the instant invention applies to the assurance review steps associated with the first and second solutions. Obviously, if the solutions fail one of the review processes, the quality of solution is called into question and the solution is repaired, altered, or scrapped in favor of an alternative solution, unless it is not the intent of the engineering team to actually correct the deficiency. After reviewing the specification, namely page 5, it is the explicit understanding of the Examiner that the instant invention most assuredly does intend to include correction of deficiencies as identified by the first and second assurance reviews, inherently disclosing the recursive nature of the review process. Furthermore, the specification also discloses a periodic project management review for verification of various project goals and customer satisfaction, inherently disclosing the possibility of altering the solution sets.

Appellant also asserts that performing a first readiness review of the second solution...to establish a baseline for performance and profit is not the same as Eisener's step of recomposing and refining the baseline concept. Examiner respectfully disagrees. Since a baseline is nothing more that a

standard or metric, wherein certain specifications are measured against, the baselining considered in Eisener is the same as in the claimed invention. Again, a review to check performance standards (metrics) and profitability (budgetary constraints) are inherent to a systems engineering design team.

In summary, Appellant asserts that Eisener does not describe the steps of performing a first assurance review, performing a second assurance review, and a first readiness review. In disagreement, Examiner points specifically to Figures 7.2 and 7.3 in Eisener wherein several review steps are conducted, along with considerations to risk, margins, and baselining. Generally speaking, the claimed invention is nothing more than the systems engineering method of Eisener cloaked in alternative technical jargon. Candidly, it is the opinion of the Examiner that the claimed invention is nothing more than a basic systems engineering process that is taught to engineering students in college. This is why each of the steps of the claimed invention are shown in a college-level textbook, i.e. these steps are inherent to all productive and profitable systems engineering programs.

### Issue 2

Claim 4 stands rejected under 35 U.S.C. 101 as being directed toward non-statutory subject matter. Appellant disagrees.

Dependent claim 4 cites limitations regarding a readiness review that is performed by conducting a meeting. Although the claimed subject may at times produce a useful and tangible result, it is the opinion of the Examiner that this

step does not produce a concrete result. That is, the subject matter contained within the claims merely relates an intention to produce result i.e. tangible written reports or to verify the existence of said reports, but the results are not concrete because the outcome of the meeting is not predictable or repeatable. That is, the results of each meeting would most likely change from meeting to meeting. As affirmed above, the subject matter contained within the claims merely relates a thought process and not a physical device such as a computer or computer software that would produce or organize such written reports or establish whether the reports exist at all. Consequently, the claim language as written does not meet the requirements for statutory subject matter.

It appears to the Examiner that the Appellant is attempting to claim a meeting, which is non-statutory. As the claim is written, it is unclear what method/process Appellant is intending to encompass. In addition, the process that is non-statutory in that the application of the intended plan is not defined. Examiner agrees that business processes are patentable. However, the process must produce a useful, concrete, tangible result. As written, the limitations do not.

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<u>Issue 3</u>

Claim 4 stands rejected under 35 U.S.C. 112 as being indefinite.

Appellant disagrees.

Dependent claim 4 cites limitations regarding a readiness review that is

performed by conducting a meeting to establish whether reports have been

generated. However, dependent claim 4 does not disclose what one would

expect to gain or gather once establishment or non-establishment of said written

reports was confirmed. Consequently, the result of such a meeting does is

vague and indefinite. For the purposes of this examination, it will be assumed

that a report regarding the establishment of the enumerated written reports will

be established and documented.

It appears to the Examiner that the Appellant is attempting to claim a

meeting, which is non-statutory. As the claim is written, it is unclear what

method/process Appellant is intending to encompass. In addition, the process

that is non-statutory in that the application of the intended plan is not defined.

Examiner agrees that business processes are patentable. However, the process

must produce a useful, concrete, tangible result. As written, the limitations do not

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For the above reasons, it is believed that the rejections should be sustained.

Respectfully Submitted

James A. Reagan Examiner Art Unit 3621

March 3, 2003

Conferees:

James Trammell

John Hayes

JOHN R PIVNICHNY IBM CORPORATION DEPT N50 BLDG 40 4 1701 NORTH STREET ENDICOTT, NY 13760 SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3600